General

Guideline Title

Cancer chemotherapy and pregnancy.

Bibliographic Source(s)

Koren G, Carey N, Gagnon R, Maxwell C, Nulman I, Senikas V. Cancer chemotherapy and pregnancy. J Obstet Gynaecol Can. 2013 Mar;35(3):263-78. [88 references] PubMed

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The quality of evidence (I-III) and classification of recommendations (A-L) are defined at the end of the "Major Recommendations."

Summary Statements and Recommendations

Summary Statements

1. As women are postponing child-bearing, more of them are experiencing cancer in pregnancy. (II-2)
2. Chemotherapeutic agents used to combat cancer cross the placenta and may adversely affect embryogenesis by affecting cell division. (II-1)
3. Exposure to such agents after the first trimester of pregnancy has not been associated with increased risk of malformations but is associated with increased risk of stillbirth, intrauterine growth restriction, and fetal toxicities. (II-2)

Recommendations

1. The health care provider should examine the patient's risk of pregnancy and desire to prevent pregnancy during chemotherapy. (I-A)
2. Decisions about the best course of management in pregnancy, including timing of delivery, should balance maternal and fetal risks. Most authorities concur that maternal health and well-being must prevail. (I-A)
3. Women diagnosed with cancer in pregnancy should be optimally managed by a multidisciplinary team that includes oncologists and/or hematologists (depending on the malignancy), perinatologists, family physicians, psychologists, social workers, and spiritual advisors, if sought by the family. (I-A)

Definitions:

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial

II-1: Evidence from well-designed controlled trials without randomization

II-2: Evidence from well–designed cohort (prospective or retrospective) or case–control studies, preferably from more than one centre or research group

II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category.

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

*Adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Classification of Recommendations†

A. There is good evidence to recommend the clinical preventive action.

B. There is fair evidence to recommend the clinical preventive action.

C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D. There is fair evidence to recommend against the clinical preventive action.

E. There is good evidence to recommend against the clinical preventive action.

L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making.

†Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Cancer
- Pregnancy

Guideline Category

Counseling

Management

Risk Assessment

Treatment

Clinical Specialty

Family Practice

Hematology

Internal Medicine

Obstetrics and Gynecology

Oncology

Psychology

Intended Users

Advanced Practice Nurses

Physician Assistants

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Social Workers

Guideline Objective(s)

- To promote careful education, administration, monitoring and restricted distribution when prescribing and dispensing chemotherapeutic and potentially teratogenic medications
- To develop clinical recommendations for the use of cancer chemotherapy in pregnant women and women of child-bearing age

Target Population

- Pregnant women with cancer
- Women of child-bearing age with cancer

Interventions and Practices Considered

1. Evaluation of the patient's risk of pregnancy
2. Prevention of pregnancy during chemotherapy
3. Management of risks of chemotherapy in pregnancy
    - Timing of delivery
    - Determination of maternal and fetal risks
4. Management by a multidisciplinary team (oncologists and/or hematologists, perinatologists, family physicians, psychologists, social workers, and spiritual advisors, as indicated)

Major Outcomes Considered

- Incidence of cancer during pregnancy
- Fetal outcomes following maternal chemotherapy
- Maternal survival rates

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Searches of Unpublished Data

Description of Methods Used to Collect/Select the Evidence

Published literature was retrieved through searches of PubMed or Medline, CINAHL, and The Cochrane Library in 2011, using appropriate controlled vocabulary (e.g., antineoplastic agents, neoplasms, pregnancy) and key words (e.g., cancer, neoplasms, pregnancy, chemotherapy, antineoplastic agents). Results were restricted to systematic reviews, randomized control trials/controlled clinical trials, and observational studies. Studies were restricted to those with available English abstracts or text. Searches were updated on a regular basis and incorporated in the guideline to October 2011. Grey (unpublished) literature was identified through searching the websites of health technology assessment and health technology assessment-related agencies, clinical practice guideline collections, clinical trial registries, and from national and international medical specialty societies.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly randomized controlled trial

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II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results in uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category.

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees

*Adapted from The Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

The quality of evidence obtained was rated using the criteria described in the Report of the Canadian Task Force on Preventative Health Care (see the "Rating Scheme for the Strength of the Evidence" field).

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Classification of Recommendations†

A. There is good evidence to recommend the clinical preventive action.

B. There is fair evidence to recommend the clinical preventive action.

C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D. There is fair evidence to recommend against the clinical preventive action.

E. There is good evidence to recommend against the clinical preventive action.

L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making.

†Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Internal Peer Review

Description of Method of Guideline Validation

This clinical practice guideline has been prepared by the Chemotherapy During Pregnancy Working Group and approved by the Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Reduction of potential teratogenic/reproductive risks of exposure to antineoplastic agents
- Appropriate counseling of women of child-bearing age who are receiving chemotherapy on the risks of becoming pregnant
- Appropriate management of pregnant women who are receiving chemotherapy

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This document reflects emerging clinical and scientific advances on the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level. None of these contents may be reproduced in any form without prior written permission of the Society of Obstetricians and Gynaecologists of Canada (SOGC).

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Foreign Language Translations

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Safety

Identifying Information and Availability

Bibliographic Source(s)

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2013 Mar

Guideline Developer(s)

Society of Obstetricians and Gynaecologists of Canada - Medical Specialty Society

Source(s) of Funding

Society of Obstetricians and Gynaecologists of Canada (SOGC)

Guideline Committee

The Chemotherapy During Pregnancy Working Group

Composition of Group That Authored the Guideline

Principal Authors: Gideon Koren, MD, Toronto ON; Nathalie Carey, BSc, Toronto ON; Robert Gagnon, MD, Montreal QC; Cynthia Maxwell, MD, Toronto ON; Irena Nulman, MD, Toronto ON; Vyta Senikas, MD, Ottawa ON

Financial Disclosures/Conflicts of Interest

Disclosure statements have been received from all authors.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the Society of Obstetricians and Gynaecologists of Canada Web site . Also available in French from the SOGC Web site .

Print copies: Available from the Society of Obstetricians and Gynaecologists of Canada, La société des obstétriciens et gynécologues du Canada (SOGC) 780 promenade Echo Drive Ottawa, ON K1S 5R7 (Canada); Phone: 1-800-561-2416.

Availability of Companion Documents

None available

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI Institute on May 2, 2013. The information was verified by the guideline developer on May 9, 2013.

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